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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Henry Stevens

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EXAMINER

ROHRHOFF, DANIEL J

ART UNIT

PAPER NUMBER

3637

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/593,146	Applicant(s) STEVENS, HENRY	
	Examiner DAN ROHRHOFF	Art Unit 3637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 232-270 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 232-270 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2010 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings were received on 3/1/2010. These drawings are acceptable.
2. The drawings are objected to because Figs. 59-62 on drawing sheets 47-49 are not clear. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 232, 234-247, 255-256, 258-263 & 267-268 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips et al. (US patent application publication 2002/0088379) hereinafter referred to as Phillips, In view of Stevens (US patent 7,026,375).
5. Regarding claim 232, Phillips discloses a pallet wherein the pallet is manufactured substantially from a filled plastics material comprising: at least 10% by weight of a polymer (§ 22); and at least 25% by weight a mineral filler material comprising sand (§ 22). Phillips does not disclose at least 0.1% by weight but less than 10% by weight a unifier. Stevens teaches a polymer used in manufacturing processes comprising a unifier (residual moisture, Col. 2: line 66-Col. 3: line 42) wherein the unifier makes up at least 0.1% by weight but less than 10% by weight (Col. 3: lines 11-12). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the material of Phillips to include a unifier which makes up at least 0.1% by weight but less than 10% by weight of the material as taught by Stevens, since it would have joined the polymer with the filler.
6. The pallet disclosed in Phillips, as modified by Stevens is capable of carrying a load of at least 50 kilograms.
7. The product-by-process limitation “rotationally-moulded” in the preamble would not be expected to impart distinctive structural characteristics to the load carrying apparatus. Therefore, the claimed load carrying apparatus is not different and unobvious from the pallet of Phillips, as modified by Stevens.

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8. Regarding claim 234, Phillips teaches an apparatus wherein the filled plastics material comprises at least 25% by weight polymer (§ 22).

9. Regarding claim 235, Phillips teaches an apparatus wherein the filled plastics material comprises from about 30% to about 70% by weight polymer and from about 70% to about 30% by weight mineral filler material (§ 22).

10. Regarding claim 236, Phillips teaches an apparatus wherein the material comprises at least 0.25% by weight of unifier (Stevens: Col. 3: lines 11-12).

11. Regarding claim 237, Phillips, as modified by Stevens, teaches an apparatus wherein the material comprises less than 5% by weight of unifier (Stevens: Col. 3 lines 11-12).

12. Regarding claim 238, the product-by-process limitation “unifier is pre-mixed with the mineral filler” would not be expected to impart distinctive structural characteristics to the load carrying apparatus. Therefore, the claimed load carrying load carrying apparatus is not different and unobvious from the pallet of Phillips, as modified by Stevens.

13. Regarding claims 239-242, Phillips, as modified by Stevens, teaches the unifier to comprise an internal lubricant comprising a fatty acid amide which is a straight or branched C₁₂-C₂₄ fatty acid amide comprising stearamide (Stevens: Col. 3: lines 30-42).

14. Regarding claims 243 & 267, Phillips, as modified by Stevens, teach the unifier to comprise an external lubricant comprising a stearate (Stevens: Col. 3: lines 56-67).

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15. Regarding claim 244, Phillips, as modified by Stevens, teaches an apparatus wherein the unifier comprises less than 20% by weight internal lubricant (Stevens: Col. 3: lines 50-55).

16. Regarding claim 245, Phillips, as modified by Stevens, teaches an apparatus with an internal lubricant. Phillips, as modified by Stevens, does not teach the unifier to comprise about 10% by weight internal lubricant. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus to contain about 10% by weight internal lubricant, since the general condition of the claim are disclosed in the prior art, and it is not inventive to discover the optimum or workable ranges by routine experimentation. (see MPEP 2144.05).

17. Regarding claim 246, Phillips teaches the apparatus to be formed substantially in one piece (§ 23 describes how the apparatus is molded in one piece).

18. The product-by-process limitation “rotationally moulded” would not be expected to impart distinctive structural characteristics to the load carrying apparatus. Therefore, the claimed load carrying apparatus is not different and unobvious from the pallet of Phillips, as modified by Stevens.

19. Regarding claim 247, Phillips teaches the apparatus to be a pallet (§ 2).

20. Regarding claim 255, Phillips teaches a pallet further comprising an outer skin layer having an upper surface and a lower surface (§ 6 describes a coated pallet, the coating is the outer layer and obviously will have an upper exposed surface and a lower surface bonded to the pallet).

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21. Regarding claim 256, Phillips teaches a pallet further comprising an inner layer having a different composition to the outer skin layer (the inner layer is the pallet and the outer layer is the applied coating as described in ¶ 6).

22. Regarding claim 258, Phillips teaches a pallet wherein the inner layer is comprised of mineral filler material at least 40% by weight (¶ 22).

23. Regarding claim 259, Phillips teaches a pallet wherein the outer skin layer comprises more than about 50% by weight polymer (¶ 6 describes the outer layer to be a polyurea).

24. Regarding claim 260, Phillips teaches a pallet wherein the outer skin layer comprises more than about 60% by weight polymer (¶ 6 describes the outer layer to be a polyurea).

25. Regarding claim 261, Phillips teaches a pallet wherein the inner layer comprises about 60% by weight a mineral filler material (¶ 22).

26. Regarding claim 262, Phillips teaches a pallet wherein the inner layer comprises a greater amount of filler by weight than the outer layer (¶ 6 describes the outer layer to comprise of polyurea and the inner layers to contain filler).

27. Regarding claim 263, Phillips teaches the pallet to comprise a pigment (¶ 21).

28. Regarding claim 268, Phillips, as modified by Stevens, teaches the apparatus to be a pallet (¶ 2).

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29. Claims 233 & 266 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips in view of Stevens, as applied to claim 232 above, and further in view of Strebel (US patent 6,083,434).

30. Regarding claims 233 & 266, Phillips, as modified by Stevens, teaches the apparatus as claimed. Phillips, as modified by Stevens, does not teach the polymer to comprise a high density polyethylene (HDPE). Strebel teaches a material comprising a high density polyethylene (Col. 3: line 64-Col. 4: line 12). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the pallet of Phillips, previously modified by Stevens, to include a high density polyethylene as taught by Strebel, since it would have adjusted the strength.

31. Claims 248-254 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips in view of Stevens, as applied to claims, 232 & 247 above, and further in view of Alexander et al. (US patent 5,666,886) hereinafter referred to as Alexander.

32. Regarding claim 248, Phillips, as modified by Stevens, teaches the apparatus as claimed. Phillips, as modified by Stevens, does not teach the pallet to comprise a platform and a plurality of feet depending from the platform. Alexander teaches a pallet with a platform (1) and a plurality of feet (5) depending from the platform (Fig. 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Phillips, previously modified by Stevens, to include a platform and a plurality of feet depending from the platform as taught by Alexander, since it would have provided an elevated surface for transporting materials.

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33. Regarding claims 249-254, Phillips, as modified by Stevens and Alexander, teaches the apparatus as claimed. Phillips, as modified by Stevens, does not teach a pallet wherein the feet of the pallet are regularly spaced over the lower surface of the platform; the feet are arranged to enable lifting equipment to engage the pallet from any one of four directions; at least one foot is arranged substantially at each corner of the platform of the pallet; at least one foot is arranged substantially at the centre of the platform of the pallet; at least one foot is arranged substantially at the centre of each edge of the platform of the pallet; and each foot has a recess in the lower surface of the foot. Alexander teaches a pallet with a platform (1) and a plurality of feet (5) wherein the feet of the pallet are regularly spaced over the lower surface of the platform (Fig. 1); the feet are arranged to enable lifting equipment to engage the pallet from any one of four directions (Fig. 1); at least one foot is arranged substantially at each corner of the platform of the pallet (Fig. 1); at least one foot is arranged substantially at the centre of the platform of the pallet (Fig. 1); at least one foot is arranged substantially at the centre of each edge of the platform of the pallet (Fig. 1); and each foot has a recess (26a) in the lower surface of the foot (Fig. 6). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Phillips, previously modified by Stevens and Alexander, wherein the feet of the pallet are regularly spaced over the lower surface of the platform; the feet are arranged to enable lifting equipment to engage the pallet from any one of four directions; at least one foot is arranged substantially at each corner of the platform of the pallet; at least one foot is arranged substantially at the centre of the platform of the pallet; at least one foot is arranged

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substantially at the centre of each edge of the platform of the pallet; and each foot has a recess in the lower surface of the foot, as taught by Alexander, since it would have provided an elevated surface for transporting materials which can be moved by a forklift.

34. Claim 257 is rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips in view of Stevens, as applied to claims 232, 246, 255 & 256 above, and further in view of Ettlinger et al. (US patent application publication 2002/0119215) hereinafter referred to as Ettlinger.

35. Phillips, as modified by Stevens, teaches the apparatus as claimed. Phillips, as modified by Stevens, does not teach the inner layer to comprise a foaming agent. Ettlinger teaches a pallet to comprise a foaming agent (Col. 3: lines 10-14). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the pallet of Philips, previously modified by Stevens, wherein the inner layer comprises a foaming agent, as taught by Ettlinger, since it would have ensured that the material completely filled the mold cavity.

36. Claims 264-265 & 269 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips in view of Stevens, as applied to claim 232 above, and further in view of Muirhead (US patent application publication 2002/0030597).

37. Regarding claim 264-265 & 269, Phillips, as modified by Stevens teaches the pallet as claimed. Phillips, as modified by Stevens does not teach the pallet to include a remotely readable RFID tag moulded into the surface. Muirhead teach a pallet with a

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remotely readable RFID tag moulded into the surface of the pallet (¶ 38). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the pallet of Phillips, previously modified by Stevens, to include a remotely readable RFID moulded into the surface tag as taught by Muirhead, since it would have allowed the pallet to be tracked and prevented damage to the RFID tag.

38. Claim 270 is rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips in view of Stevens, as applied to claim 232 above, and further in view of Perry (US patent 5,170,933).

39. Phillips, as modified by Stevens, discloses the apparatus as claimed. Phillips, as modified by Stevens, does not disclose the apparatus to be a freight container. Perry further teaches a pallet (12) with an attachment (36) to make it a freight container (Fig. 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the pallet of Phillips, previously modified by Stevens, to include an attachment to make it a freight container, as taught by Perry, since it would have enclosed the items on the pallet.

Response to Arguments

40. Applicant's arguments filed 3/1/2010 have been fully considered but they are not persuasive.

41. Applicants argument that the pallet of Phillips, as modified by Stevens, does not address the structural differences imparted by the words "rotationally-moulded" as recited in independent claim 232, is not persuasive.

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42. Regarding applicant's argument stating the pallet of Phillips would clearly have a laminated structure with different properties from a rotationally molded pallet, the examiner disagrees. The pallet of Phillips constructed of composite boards (§ 23) can be produced by rotational molding. Phillips teaches a pallet may be produced by any thermoforming processing known to those of ordinary skill in the art (§ 23). Although rotational molding is not specifically cited by Phillips it was known in the art at the time of the invention.

43. Applicant's hypothetical situation regarding the bending of sheets to form legs is moot because Phillips does not disclose any situation in which sheets would need to be bent to form legs.

44. Applicant's argument stating the Office action has failed to address significant structural differences between the claimed pallet and the Phillips pallet is not persuasive. The examiner has considered the distinctive structural characteristics in the pallet as claimed. Since the Phillips pallet and the claimed invention are the same final product, they will inherently have the same structural characteristics.

Conclusion

45. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAN ROHRHOFF whose telephone number is (571)270-7624. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darnell Jayne can be reached on 571-272-7723. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. R./
Examiner, Art Unit 3637
5/3/2010

/Janet M. Wilkens/
Primary Examiner, Art Unit 3637